

CLAIMS

1. A switching apparatus for arrangement in a rotor blade of a wind power installation wherein the switching apparatus is activated when the switching apparatus has assumed a given switching position, comprising:

an actuating shaft which is rigidly connectable to a rotor blade;

an actuator and at least one switch, wherein the actuator and the switch are disposed in a housing and the actuator is in the form of an actuator which is provided at least by a arcuate guide and which is connected with a first actuating guide portion to the actuating shaft.

2. The apparatus according to claim 1, further including:

a second actuating guide portion which arcuately embraces the actuating shaft at a predetermined spacing, wherein the arcuate portion faces with its inside towards the actuating shaft and on its outside has projections which upon movement and with suitable positioning co-operate with the switch.

3. The apparatus according to claim 2, further including:

projections on the second actuating guide portion which is in the form of an actuating track for the switch, insofar as at at least one predetermined position in respect of the spacing between the outer peripheral edge of the projections, the projections touch a part of the switch.

4. The switching apparatus according to claim 2 wherein the arcuate portion of the second actuating guide portion extends completely around the actuating shaft to form a circular, arcuate portion.

5. The switching apparatus according to claim 1, further including a plurality of switches along the direction of movement and/or the length of the second actuating guide portion.

6. The switching apparatus according to claim 1, further including a plurality of actuating tracks for a plurality of switches, said tracks being arranged in mutually juxtaposed relationship over the length of the second actuating guide portion.

7. The switching apparatus according to claim 1 wherein at least one switch is an electronic switch.

8. The switching apparatus according to claim 1, further including a base plate through which the actuating shaft is passed.

9. The switching apparatus according to claim 8 wherein the actuating shaft extends a predetermined length on the side of the base plate remote from the actuating guide and terminates in a connecting sleeve.

10. The switching apparatus according to claim 1, further including a first carrier plate which is mounted to the base plate and carries the switch or switches.

11. The switching apparatus according to claim 1, further including:
a rotary sender actuated by means of the actuating shaft.

12. The switching apparatus according to claim 11, further including a rotary sender shaft connected to the actuating shaft by a coupling.

13. The switching apparatus according to claim 11, characterised by a common shaft for the actuating guide and the rotary sender.

14. The switching apparatus according to claim 11, further including a second carrier plate to which the rotary sender is fixed.

15. The switching apparatus according to claim 11 wherein the rotary sender is in the form of an incremental sender or a potentiometer.

16. The switching apparatus according to claim 1, further including: a bearing and the actuating shaft is guided through the base plate with the bearing.

17. The switching apparatus according to claim 1, further including a connecting cable that is guided through a cable ducting in the base plate.

18. The switching apparatus according to claim 1, further including: a plug connector fixed to the outside of the switching apparatus.

19. The switching apparatus according to claim 1, further including a cover hood which is formed in one piece, having an opening closable by the base plate.

20. The switching apparatus according to claim 1, further including a heating source within the internal space of the switching apparatus, which space is formed by the base plate and the cover hood.

21. The switching apparatus according to claim 19, further including a sealing fit of the cover hood on the base plate.

22. The switching apparatus according to claim 19, further including a predetermined minimum wall thickness of the cover hood and an in particular shear-resistant connection between the base plate and the cover hood.

23. The wind power installation having at least one switching apparatus according to claim 1.

24. The wind power installation according to claim 23, further including a rotor having at least one rotor blade, wherein the switching apparatus is adapted to detect a pitch of the rotor blade.

25. The wind power installation according to claim 24 wherein the actuating shaft of the switching apparatus, for detecting the pitch, is coupled to the rotor blade in such a way that a change in the pitch of the rotor blade causes a rotational movement of the actuating shaft.

26. The wind power installation according to claim 24 characterised by a pitch regulation which as a measuring member has the switching apparatus and is adapted to regulate the pitch of the rotor blade.

27. The wind power installation according to claim 26 wherein the pitch regulation has a regulator and as an adjusting member a pitch drive.